CLAIMS:

What is claimed is:

1. An optical component comprising:

a) a reflecting element having at least one substantially planar surface; and

b) a lens element having at least one substantially planar surface, the lens element being positioned relative to the reflecting element whereby the at least one substantially planar surface of the lens element is adjacent and substantially parallel to the at least one substantially planar surface of the reflecting element, the lens element also having a curved surface for focusing light passing through it.

2. The optical component of claim 1 wherein the optical component is formed of a single optical piece having a slit cut therein to separate the reflecting element from the lens element.

3. The optical component of claim 1 wherein the reflecting element is formed of a first optical piece and wherein the lens element is formed of a second optical piece, and wherein the optical component is formed by affixing the first optical piece to the second optical piece with an air gap between them.

4. The optical component of claim 3 wherein the first and second optical pieces are affixed to each other with spacers positioned between their respective substantially planar surfaces.

5. The optical component of claim 1 wherein the reflecting element also has a lens surface.

6. The optical component of claim 1 wherein the reflecting element is circularly symmetrical, having a generally circular base and generally cylindrical shape, and having a conical indentation within the upper portion of the cylinder shape that serves as a TIR element for light approaching at less than the critical angle from around the perimeter of the cylinder.

7. The optical component of claim 6 wherein the lens element is circularly symmetrical, having a generally cylindrical shape but having a conical end which mates with the conical indentation in the reflecting element and having a lens surface opposite the conical end.

8. The optical component of claim 6 wherein the end of the generally cylindrical shape of the reflecting element that is opposite to the conical indentation is substantially planar.

9. The optical component of claim 6 wherein the end of the reflecting element that is opposite to the conical indentation is substantially curved to form a lens surface.

10. A packaged integrated optical component comprising:

a) a reflective substrate mounted in a semiconductor package having an opening through which light beams may pass;

b) a reflecting element mounted to the opening and having at least one substantially planar surface; and

c) a lens element having at least one substantially planar surface, the lens element being positioned relative to the reflecting element whereby the at least one substantially planar surface of the lens element is adjacent and substantially parallel to the at least one substantially planar surface of the reflecting element, the lens element also having a curved surface for focusing light passing through it.

11. The packaged integrated optical component of claim 10 and further comprising a clear window mounted in the opening and wherein the reflecting element is affixed to the optical component above the clear window.

12. The packaged integrated optical component of claim 10 wherein the reflecting element is mounted directly into the opening.

13. A method for optically processing light comprising:

a) providing an illumination beam of light over an illumination path;

b) providing a spatial light modulator for modulation of the illumination beam, the spatial light modulator acting as the endpoint for the illumination beam and originating a reflection beam over a reflection path;

c) providing a single integrated optical component comprising a TIR prism element and a lens element wherein the single integrated optical component is placed in the illumination path and also in the reflection path;

d) directing with the single integrated optical component the illumination beam toward the spatial light modulator; and

e) focusing the reflection beam with the single integrated optical component as the reflection beam passes out of the single integrated optical component.

14. The method of claim 13 wherein the single integrated optical component directs the illumination beam toward the spatial light modulator using TIR reflection.

15. The method of claim 14 wherein the TIR prism element of the single integrated optical component further comprises a lens surface and wherein the lens surface directs the illumination beam toward the spatial light modulator after TIR reflection by focusing it through the lens surface.

16. The method of claim 13 wherein the single integrated optical component directs the illumination beam toward the spatial light modulator by focusing it through the lens element.

17. The method of claim 13 wherein the lens element of the single integrated optical component is positioned telecentrically relative to the reflection path from the spatial light modulator.

18. The method of claim 13 wherein the lens element of the single integrated optical component is positioned non-telecentrically relative to the reflection path from the spatial light modulator.

19. The method of claim 13 wherein the spatial light modulator is integrated with the single integrated optical component into a packaged integrated optical component.